

A very distinct and remarkable species, more highly coloured than its congeners; but it is chiefly distinguished by its curiously compressed form. A second specimen, brought by Dr. Hungerford, is only 62 millimetres in length, and rather wider in proportion. It is rather lighter in colour, but presents all the same characters, confirming the specific importance of the chief characteristic, which might otherwise have been thought accidental.

PECTUNCULUS YESSOENSIS, n. sp. (Plate XXVIII. fig. 19.)

Testa suborbicularis, compressa, solida, sordide alba, zonis maculisque rufo-fuscis angulatis picta, striis minimis decussatim sculpta; umbones acutiusculi, approximati; area ligamenti parva et angusta; margo dorsalis anticus longiusculus declivis, posticus elongatus valde declivis, obtuse angulatus; margo ventralis anticus valde arcuatus, posticus obscure angulatus; epidermis fusca, holoserica; pagina interna alba; crenæ in margine ventris longiusculæ, crassæ.

Diam. antero-post. 48, umbono-marg. 45 millim.

Hab. Yesso, Japan.

In painting and sculpture this species is not very unlike some varieties of *P. glycimeris* of our seas, but may at once be recognized by its sloping dorsal margins and posterior angle.

EXPLANATION OF PLATE XXVIII.

- Fig. 1, 2. *Oniscia macandrewi*, p. 567.
 3, 4. *Mitra brionæ*, p. 566.
 5, 6. — *millepunctata*, p. 566.
 7. — *exquisita*, p. 565.
 8, 9. *Turcica chinensis*, p. 569.
 10, 11. *Murex superbus*, p. 565.
 12. *Cancellaria fusca*, p. 568.
 13. *Minolia chinensis*, p. 569.
 14. *Calliostoma hungerfordi*, p. 568.
 15. *Pleurotoma (Bela) laceyi*, p. 567.
 16. — (—) *hongkongensis*, p. 567.
 17. — *notata*, p. 566.
 18. *Dentalium compressum*, p. 569.
 19. *Pectunculus yessoensis*, p. 570.

2. List of the Lepidoptera Heterocera, with Descriptions of the new Species, collected by Mr. C. M. Woodford at Aola, Guadalcanar Island, Solomon Islands. By HERBERT DRUCE, F.L.S., F.R.G.S., F.Z.S., &c.

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(Plate XXIX.)

The collection of which this paper gives an account formed part of the second series of insects brought to this country by Mr. Woodford. It was made at Aola on Guadalcanar Island, and contains examples of a considerable number of species that were not in the



W. Purkiss del.

Hanhart imp.

NEW LEPIDOPTERA HETEROCERA.



first collection. All the specimens are in my possession. Of fifty-three species represented in the present collection, I have described eighteen as new to science, two being not good enough for determination.

Fam. SPHINGIDÆ.

Subfam. MACROGLOSSINÆ.

1. MACROGLOSSA FULVICAUDATA.

Macroglossa fulvicaudata, Butl. Ann. & Mag. Nat. Hist. ser. 5, x. p. 155.

The specimens are identical with those in my collection from the New Hebrides and New Britain.

Subfam. SPHINGINÆ.

2. DILUDIA NEBULOSA.

Diludia nebulosa, Butl. Trans. Zool. Soc. ix. p. 615.

The specimen agrees with the type in the National Collection from Cape York.

Fam. AGARISTIDÆ.

3. EUSEMIA SIRIELLA, n. sp. (Plate XXIX. fig. 1.)

♂ and ♀ alike.

Primaries black, with four pure white spots, the first close to the base on the inner margin, the second small and square-shaped in the middle of the cell, the third below near the inner margin, the fourth larger, placed beyond the cell and nearer the apex; secondaries black, with a large central round white spot. The underside of all the wings the same as above. The head, antennæ, palpi, thorax, and legs black; the abdomen pale yellow. Expanse, ♂ 2 inches, ♀ 2½ inches.

Hab. Aola, Guadalcanar Island, Solomon Islands (*C. M. Woodford*).

This species is allied to *Eusemia woodfordii*, Butl., from Shortland Island, but it is at once distinguished from that species in having four white spots on the primaries instead of five.

4. OPHTHALMIS LINCEA.

Ophthalmis lincea, Cram. Pap. Exot. iii. p. 61, t. 228. f. B.

The specimens are identical with those in my collection from Amboyna.

The species of this genus seem to vary to a considerable extent in the size of the apical orange spot on the primaries. I have specimens of *O. lincea* from New Guinea in which the orange apical patch is almost gone, and others from the same place in which it is of quite the normal form.

Subfam. EUCHROMINÆ.

5. EUCHROMIA GANYMEDE.

Euchromia ganymede, Doubl. Lort's Disc. App. t. 3; Butl. Journ. Linn. Soc. xii. p. 365; Trans. Ent. Soc. 1888, p. 111.

Fam. ARCTIIDÆ.

6. PELOCHYTA ASTRÆA.

Pelochyta astræa, Drury, Ill. Exot. Ins. ii. t. 28. f. 4; Walk. Cat. iii. p. 725.

One specimen in poor condition, agreeing well with specimens of this species in my collection from New Guinea, excepting it is considerably larger.

Fam. HYP SINÆ.

7. HYP SA SEMIFUSCA.

Hypsa semifusca, Butl. Ann. & Mag. Nat. Hist. ser. 5, vol. xix. p. 220.

The specimens from Aola are identical with those from Alu, Shortland Island.

8. HYP SA DIANA.

Hypsa diana, Butl. Ann. & Mag. Nat. Hist. ser. 5, vol. xix. p. 220.

The large crescent-shaped spot on the primaries varies considerably in size, in some specimens it is much larger than in others. The specimens before me from Aola are identical with those in the National Collection from Shortland Island.

9. CLEIS BIPLAGIATA.

Cleis biplagiata, Butl. Ann. & Mag. Nat. Hist. ser. 5, vol. xix. p. 221.

The Aola specimen is identical with the type from Ulaua.

10. CLEIS HYPOLEUCA.

Cleis hypoleuca, Butl. Ann. & Mag. Nat. Hist. ser. 5, vol. xix. p. 222.

Two specimens identical with those from Shortland Island.

11. CLEIS NENIA, sp. n. (Plate XXIX. fig. 2.)

♂ ♀. Primaries and secondaries uniform purplish brown. Primaries crossed beyond the middle from the costal margin to near the anal angle with a wide reddish-orange band, which is almost lobe-shaped, being narrow on the costal margin. Underside: primaries reddish brown, the orange band as above, but brighter in colour; a silver-grey marginal line extending from the apex to the anal angle, the fringe black; secondaries uniform dark brown, with a silver-grey marginal line extending from the apex to the anal angle. Head, thorax, and abdomen dark brown. Antennæ, palpi, and legs reddish orange. Expanse, ♂ $1\frac{1}{4}$ inches, ♀ $1\frac{1}{2}$ inches.

Hab. Aola, Guadalcanar Island, Solomon Islands.

This species is allied to *C. nigrescens*, Butl., from Shortland Island, from which it is at once distinguished by the band on the primaries being narrower and by the entire absence of colour on the underside of the secondaries.

Fam. NYCTEMERIDÆ.

12. NYCTEMERA ALUENSIS.

Nyctemera aluensis, Butl. Ann. & Mag. Nat. Hist. ser. 5, xix. p. 222.

The male and female specimens from Aola are identical with those in the National Collection from Alu Island.

13. NYCTEMERA HORITES, sp. n.

Primaries black. A large elongated white spot at the end of the cell, below which are four oval-shaped white spots, the third from the cell being considerably larger than the others. Secondaries pure white, broadly bordered with black; the fringe of both primaries and secondaries white. The underside the same as above. The head, thorax, and abdomen black, banded with white, the anus orange. Antennæ and legs black. Expanse $2\frac{1}{4}$ inches.

Hab. Aola.

This species is allied to *Nyctemera extendens*, Walk.

14. LEPTOSOMA AOLAENSIS, sp. n.

Primaries black, with a large triangular white spot close to the base, and a crescent-shaped white spot close to the costal margin, near the apex, below which nearest the anal angle is an almost round white spot. Secondaries pure white, broadly bordered from the apex to the anal angle with black. The underside as above. Head, thorax, abdomen, and antennæ black, the abdomen banded with orange-yellow, the legs black. Expanse $1\frac{3}{4}$ inch.

Hab. Aola.

This species is allied to *Leptosoma sexmaculatum*, Butl., from Alu, but quite distinct.

15. DEILEMERA ALBIPUNCTA, sp. n.

Primaries black, a minute dot at the base, a round spot on the inner margin beyond white; a large oval-shaped white spot crosses the wing from near the costal margin to the inner margin; two white spots close to the apex, the upper one considerably the largest; a round spot on the middle of the outer margin, and a small dot close to the anal angle, both white. Secondaries white, very broadly bordered with black; on the black border nearest the apex are two round white spots, the upper one being the largest. The underside of all the wings as above. The head and thorax black, the thorax spotted with white on the front and at the base. The abdomen black, banded with white on both sides, a white spot in the middle above the anus. Antennæ and legs black. Expanse $1\frac{3}{4}$ inch.

Hab. Aola, Guadalcanar Island (*C. M. Woodford*).

The white spots on the primaries vary considerably in size, some specimens being much more spotted than others.

Fam. DREPANULIDÆ.

16. CALLIDREPANA ARGENTIFERA, sp. n. (Plate XXIX. fig. 3.)

♂. Primaries and secondaries pale cream-colour, a silver streak from the base along the costal margin to the apex, then forming a submarginal band to the anal angle, a dark brownish spot at the end of the cell irrorated with metallic scales. Secondaries with a silvery streak crossing the wing below the middle, from near the apex to the inner margin. Underside of all the wings dark yellowish cream-colour, with a submarginal slate-coloured line to each wing. Head, thorax, and abdomen dark cream-colour. Antennæ and legs yellowish.

♀. Considerably larger than the male and altogether paler in colour, and without the dark submarginal lines on the underside of the wings.

Expanse, ♂ $1\frac{1}{4}$ inch, ♀ $1\frac{1}{2}$ inch.

Hab. Aola, Guadalcanar Island (*C. M. Woodford*).

This pretty species is allied to *C. scintillata*, Walk.

Fam. NOTODONTIDÆ.

17. PHALERA PERUDA, sp. n. (Plate XXIX. fig. 4.)

♂. Primaries silvery grey, shading to pale brown along the costal margin; the apical buff spot very like that of *P. javana*, Moore, but much rounder on the inner side and in colour more like that of *P. bucephala*, Linn. Secondaries very pale silvery brown, slightly darker along the inner margin. The underside of all the wings almost white. The head and front of the thorax greyish. The thorax and abdomen dark blackish brown; the anus and each segment banded with grey. Antennæ and legs greyish brown. The underside of the abdomen silvery grey. Expanse 3 inches.

Hab. Aola, Guadalcanar Island (*C. M. Woodford*).

This species is allied to *P. javana*, Moore, from which it is at once distinguished by the paler and different-shaped apical spot on the primaries.

NOCTUITES.

Fam. LEUCANIDÆ.

18. LEUCANIA, sp. ?

One specimen from Aola in very bad condition.

Fam. CARADRINIDÆ.

19. AMYNA STELLATA ?

Amyna stellata, ? Butl. Ann. & Mag. Nat. Hist. ser. 5, i. p. 162; Illust. Lep. Het. pt. ii. p. 26, t. xxix. f. 6.

The specimens from Aola are almost identical with those in my collection from Japan excepting that the white spot on the primaries is considerably larger; they may prove to belong to a distinct species, but at present I have not sufficient specimens to determine this point.

Fam. TOXOCAMPIDÆ.

20. TOXOCAMPA LUNIFERA, sp. n.

Primaries pale mouse-colour, crossed beyond the middle by three indistinct pale lines, a spot at the end of the cell and a lunular-shaped mark on the costal margin close to the apex, both dark brown. Secondaries darker in colour than the primaries, but slightly paler at the base. The underside of all the wings uniform pale mouse-colour. Head, collar, and front of the thorax dark brown. The thorax, abdomen, and legs mouse-colour. Expanse $1\frac{1}{2}$ inch.

Hab. Aola, Guadalcanar Island (*C. M. Woodford*).

This species is quite distinct from any known to me.

Fam. PHYLLODIDÆ.

21. PHYLLODES IMPERIALIS.

Phylloides imperialis, Druce, Ann. & Mag. Nat. Hist. ser. 6, vol. ii. p. 241.

This grand insect is quite distinct from all the species of *Phylloides* known to me.

Fam. OMMATOPHORIDÆ.

22. PATULA MACROPS.

Patula macrops, Linn. Syst. Nat. p. 225; Walk. Cat. xiv. p. 1300.

Two specimens; they are almost intermediate between the Indian and Australian form of this species.

23. ARGIVA PURPURATA, sp. n.

Primaries and secondaries uniform dark blackish brown, palest at the apex of the primaries. All the wings shot with dark glossy blue. The underside dark brown with a cream-coloured spot near the apex of the primaries. The head, thorax and abdomen, antennæ and legs dark brown. Expanse $3\frac{3}{4}$ inches.

Hab. Aola, Guadalcanar Island (*C. M. Woodford*).

A fine distinct species, not closely allied to any known to me.

24. NYCTIPAO VARIEGATA.

Nyctipao variegata, Butl. Ann. & Mag. Nat. Hist. ser. 5, xix. p. 432.

The specimens from Aola are identical with the type from Alu.

25. NYCTIPAO CALIGINEA.

Nyctipao caliginea, Butl. Ann. & Mag. Nat. Hist. ser. 5, xix. p. 433.

This species varies to some extent, the white bands are much wider in some specimens than others.

Fam. BENDIDÆ.

26. HULODES CARANEA.

Hulodes caranea, Cram. Pap. Exot. iii. p. 140, t. 269. f. E, F; Walk. Cat. xiv. p. 1335.

One specimen, identical with those in my collection from Perak and Java.

Fam. REMIGIDÆ.

27. REMIGIA FRUGALIS.

Remigia frugalis, Fabr. Ent. Syst. iii. 2, p. 138 ; Walk. Cat. xiv. p. 1507.

Fam. THERMESIIDÆ.

28. SONAGARA SUPERIOR.

Sonagara superior, Butl. Ann. & Mag. Nat. Hist. ser. 5, xix. p. 433.

Fam. HYPENIDÆ.

29. HYPENA SEMICLUSALIS.

Hypena semiclusalis, Walk. Cat. xxxiv. p. 1511.

The Aloa specimens are identical with the type in the National Collection from Java.

G E O M E T R I T E S.

Fam. EUSCHEMIDÆ.

30. SATARA WOODFORDI, sp. n. (Plate XXIX. fig. 6.)

Primaries black, with two large yellow spots, the first almost oval and nearest the base, the second beyond, nearer the apex, extending from the costal margin almost to the inner margin near the anal angle. Secondaries bright yellow, crossed in the middle from the costal margin to the anal angle by a wide straight black band; the outer margin broadly bordered with black from the apex to the anal angle, where it joins the black band crossing the middle of the wing. The underside of all the wings the same as above, but not quite so bright in colour. The head, collar, and thorax black; the tegulæ bright yellow; the abdomen dusky yellow; antennæ and legs black. Expanse 2 inches.

Hab. Aola, Guadalcanar Island (*C. M. Woodford*).

I have much pleasure in naming this species after Mr. Woodford. It reminds one at first of *Phæochlæna solilucis*, a South-American insect.

31. BOCIRAZA VACUNA, sp. n. (Plate XXIX. fig. 7.)

Primaries and secondaries deep glossy black; the primaries crossed beyond the middle from the costal to the inner margin close to the anal angle with a wide orange-red band which is narrower near the inner margin. The underside of all the wings as above. The head, thorax, abdomen, legs, and antennæ all deep black. Expanse 3 inches.

Hab. Aola, Guadalcanar Island (*C. M. Woodford*).

This species is allied to *B. seprata* from New Guinea.

32. EUSCHEMA PILOSA.

Euschema pilosa, Butl. Ann. & Mag. Nat. Hist. ser. 5, xx. p. 240.

Hab. Aola, Guadalcanar Island.

The specimens from Aola are very much darker in colour and are

almost without the orange submarginal band on the secondaries, thus differing from the typical form from Shortland Island.

Fam. URANIIDÆ.

33. *ALCIDES LATONA*. (Plate XXIX. fig. 5.)

Alcides latona, Druce, Ann. & Mag. Nat. Hist. ser. 6, vol. ii. p. 241.

This beautiful species is allied to *A. aurora*, Salvin.

34. *LYSSIDIA MUTATA*.

Lyssidia mutata, Butl. Ann. & Mag. Nat. Hist. ser. 5, xx. p. 241.

Very close to *L. patroclus*, but with a more purple shade on the wings.

Fam. URAPTERYDÆ.

35. *LAGYRA MYCITERNA*, sp. n.

Primaries dark glossy brown, crossed by two wide slate-coloured bands edged with dark brown, extending from the costal to the inner margin. Secondaries glossy brownish slate-colour, crossed about the middle from the costal margin close to the apex to the inner margin by a wide dark brown band. The underside of all the wings as above. The head, thorax, abdomen, antennæ, and legs dark brown. Expanse $2\frac{1}{4}$ inches.

Hab. Aola (C. M. Woodford).

In form this species closely resembles *L. talaca*, but it is very different in colour.

Fam. GEOMETRIDÆ.

36. *IODIS MINUTATA*, sp. n.

Female. Primaries and secondaries pale pea-green, edged from the base along the costal margin to the apex, from the apex to the anal angle, and halfway up the inner margin, with reddish fawn-colour, on the inner side of which is a narrow silvery line dentated on the costal margin and at the anal angle. Secondaries with the same margin as the primaries, extending from the apex to the anal angle. The underside of all the wings silky white. The head, thorax, and abdomen pale fawn-colour. Antennæ greenish; legs fawn-colour. Expanse 1 inch.

Hab. Aola (C. M. Woodford).

A beautiful little species, resembling to some extent *I. checometa*, Meyr., but very distinct.

37. *THALASSODES OPALINA*.

Thalassodes opalina, Butl. Ann. & Mag. Nat. Hist. ser. 5, vi. p. 214; Druce, P. Z. S. 1888, p. 227.

38. *THALASSODES PATARA*, sp. n.

Male. Primaries and secondaries silvery green, both wings crossed by two dentated waved brownish bands; the fringes brownish. The underside of all the wings uniform yellowish green. Antennæ

brown. The thorax and abdomen greenish ; the legs yellow. Expanse $1\frac{1}{2}$ inch.

Hab. Aola (*C. M. Woodford*).

Two specimens of this distinct species are in the collection, but neither of them are in good condition, being much marked with damp, and doubtless fresh specimens would be of a much brighter green colour.

Fam. PALLYADÆ.

39. EUMELIA ROSALIA.

Eumelia rosalia, Cram. Pap. Exot. iv. p. 152, t. 368. f. F. ; Walk. Cat. xxii. p. 609.

A common species, found over a very extended range ; it varies considerably both in colour and markings.

Fam. DESMOBATHRIDÆ.

40. DESMOBATHRA NIPHOPLACA.

Desmobathra niphoplaca, Meyr. Trans. Ent. Soc. 1886, p. 199.

The specimens are identical with those in Mr. Mathew's collection.

Fam. MACRONIIDÆ.

41. STROPHIDIA COSTALIS.

Strophidia costalis, Butl. Ann. & Mag. Nat. Hist. ser. 5, vol. xx. p. 246.

Several specimens identical with those from Shortland Island.

42. STROPHIDIA HYEMALIS.

Strophidia hyemalis, Butl. Ann. & Mag. Nat. Hist. ser. 5, vol. xx. p. 247.

One specimen identical with the type in the National Collection, from Shortland Island.

43. STROPHIDIA BIGTHANA, sp. n.

Male and female silky white, the underside of the male dusky. The primaries crossed from the costal to the inner margin by three wide, pale fawn-coloured bands ; the secondaries crossed by two pale fawn-coloured bands, the first about the middle, the second beyond, nearer the outer margin. The outer margin of the secondaries narrowly edged with black. The head, thorax, abdomen, and legs dusky white. The antennæ black, whitish at the base. Expanse, ♂ 2 inches, ♀ $2\frac{1}{2}$ inches.

Hab. Aola (*C. M. Woodford*).

A very distinct species from any known to me.

Fam. SPILOMELIDÆ.

44. ZEBRONIA JAGUARALIS.

Spilomela jaguaralis, Guén. Sp. Gén. Léop. viii. p. 283.

Zebronia jaguaralis, Walk. Cat. xvii. p. 486.

One specimen, agreeing with specimens before me from Darjeeling, but considerably larger.